

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
**RIDOUT & MAYBEE LLP**  
2400 - One Queen Street East  
TORONTO, Ontario  
Canada, M5C 3B1

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)      05 May 2005 (05-05-2005)

Applicant's or agent's file reference  
43780-0003

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/CA2004/002141

International filing date (day/month/year)  
16 December 2004 (16-12-2004)

Priority date (day/month/year)  
16 December 2003 (16-12-2003)

International Patent Classification (IPC) or both national classification and IPC  
IPC (7) F21V 29/00, H01L 23/36, F28D 5/00

Applicant  
AIMLEDS CORPORATION ET AL.

**1. This opinion contains indications relating to the following items :**

- |   |              |   |
|---|--------------|---|
| <input checked="" type="checkbox"/> [ X ] | Box No. I    | Basis of the opinion  |
| <input type="checkbox"/> [ ]              | Box No. II   | Priority  |
| <input type="checkbox"/> [ ]              | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input checked="" type="checkbox"/> [ X ] | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> [ X ] | Box No. V    | Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement. |
| <input type="checkbox"/> [ ]              | Box No. VI   | Certain documents cited   |
| <input checked="" type="checkbox"/> [ X ] | Box No. VII  | Certain defects in the international application  |
| <input checked="" type="checkbox"/> [ X ] | Box No. VIII | Certain observations on the international application   |

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/CA  
Canadian Intellectual Property Office  
Place du Portage I, C114 - 1st Floor, Box PCT  
50 Victoria Street  
Gatineau, Quebec K1A 0C9

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Authorized officer

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**WRITTEN OPINION OF THE  
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**Box No. I      Basis of this opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language                     , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of :
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statement that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments :

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**Box No. IV      Lack of unity of invention**

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has :
- ☐ paid additional fees
  - ☐ paid additional fees under protest
  - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
5. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons :

Claim 1 is directed to a lighting assembly comprising a concave mounting with indexing, a seat with indexer, and a light source  
Claims 2 to 38 are directed to a lighting assembly comprising a thermally conductive mounting, and a heat sink seat.

6. Consequently, this opinion has been established in respect of the following parts of the international application :
- ☒ all parts
  - ☐ the parts relating to claim Nos. \_\_\_\_\_

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**Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	<u>1, 4 to 20, 23 to 38</u>	YES
	Claims	<u>2, 3, 21, 22</u>	NO
Inventive step (IS)	Claims	<u>1, 5, 7 to 20, 23, 26, 27, 28, 32, 33, 34, 36, 37, and 38</u>	YES
	Claims	<u>2, 3, 4, 6, 21, 22, 24, 25, 29, 30, 31, and 35</u>	NO
Industrial applicability (IA)	Claims	<u>1 to 38</u>	YES
	Claims	<u>None</u>	NO

**2. Citations and explanations :**

D1 US6,481,874B2 published on Nov. 19, 2002

**NOVELTY :**

Claims 1, 4 to 20, and 23 to 38 are novel and involve inventive steps. The claims fulfil the requirements of Articles 33(2) and 33(3) of PCT. The prior art does not teach a light assembly comprising a concave mounting with indexing and a seat with indexer. Prior art also does not teach a light assembly with the seat forming a wedge for angling the light emitting device, or the mounting having an indexing channel or a plurality of collimators including lens attached to the front surface of the heat sink seat.

Claims 2, 3, 21, and 22 lack novelty under PCT Article 33(2) as being anticipated by Petroski (D1)

Petroski (D1) discloses a light emitting assembly comprising a thermally conductive mounting and a heat sink seat having a front and a rear surface. The seat is movably mounted to the surface. The shape of the seat corresponds to the shape of the mounting surface. The seat is configured to receive a light emitting device, which is a LED.

**INVENTIVE STEP:**

Claims 4, 6, 24, 25, 29, 30, 31, and 35 lack in inventive step under PCT Article 33(3) as being obvious in view of Petroski and common knowledge. Petroski (D1) discloses a light emitting assembly comprising a thermally conductive mounting and a heat sink seat having a front and a rear surface. The seat is movably mounted to the surface. The shape of the seat corresponds to the shape of the mounting surface. The seat is configured to receive a light emitting device, which is a LED. Specifying a brand of LED as being a Luxeon Star or the material being aluminum are design choices and cannot be considered inventive. The heat exchanger U-shaped tube with exchange fluid is a commonly known method of removing the heat from any given space or surface and applying it to remove heat from the assembly of Petrovski would have been obvious to a person skilled in the art facing a problem of removing heat from any space or object. The result of applying such a tube is obvious as well. As claims 2, 3, 21, and 22 lack novelty, they therefore lack inventive step as well.

**INDUSTRIAL APPLICABILITY:**

The subject matter of claims 1 to 38 is considered to be industrially applicable and thus fulfills the requirements of PCT Article 33(4).

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<b>Box No. VII      Certain defects in the international application</b>
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The following defects in the form or contents of the international application have been noted:  
fully supported by the description, are made :

The ABSTRACT is objected to under PCT Rule 8.1 (d) as containing a defect in the form:

Abstract does not include reference numbers of the components mentioned in said abstract and illustrated by the drawings included in the application.

**WRITTEN OPINION OF THE  
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<b>Box No. VIII      Certain observations on the international application</b>
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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made :

CLAIM 4 is objected to under PCT Article 6 as containing a defect in the form:

Claim 4 is ambiguous by including a Trademark as the properties of the product referenced by it may change from time to time.